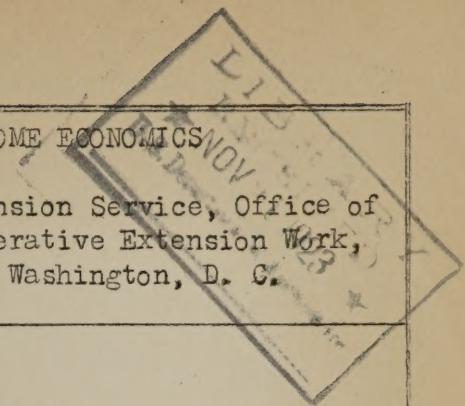


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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture  
and State Agricultural Colleges  
Cooperating.

Extension Service, Office of  
Cooperative Extension Work,  
Washington, D. C.



COTTON VARIETY STANDARDIZATION

Excerpts from 1922 Annual Reports  
of State and County Extension Agents.

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This circular is one of a series issued  
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Arizona

The county agent served for the second year on a committee segregating pure Pima cottonseed for valley planting. This seed production scheme is a model for community production of farm seed, and enlists the cooperation of the Federal Bureau of Plant Industry, the Temple Cotton Exchange, the Maricopa County Farm Bureau, the Arizona College of Agriculture, and numerous individuals. Briefly, the scheme is as follows: Pure seed descended from the original line-bred stock supplied by the Bureau of Plant Industry is planted in an 80-acre field and the resultant plants are rogued by the Bureau of Plant Industry. Seed from the rogued field is handled so as to prevent undesirable mixture; the next season it is used to plant the rogued field again, plus an increase block which surrounds the rogued field. The increase block is used the following year to plant a larger acreage in a solid block which is free from contamination; the resultant seed, rightly handled, is certified by representatives of the State College or the farm bureau. This seed is sold approximately at cost. - H. C. Heard, County Agent, Phoenix, Maricopa County.

Arkansas

Our State experiment station recommended Acala\*\* cotton as one of the best varieties for this section of the cotton belt, and I succeeded in getting the farmers interested in it. Two hundred and five of them planted all or part of their crop in Acala seed. These 205 farmers bought 2,600 bushels of Acala seed on the cooperative plan, thereby saving \$1250. This is the largest and most successful effort that has ever been made in this county along seed

\*No attempt is made to cite all references to cotton variety standardization in this circular. Only selected extracts showing typical methods employed and results secured in some States are included. Owing to differences in terminology used in the various States and to other local conditions, the information contained in this circular should be reviewed by the State subject-matter specialist concerned before incorporating any part of it in the extension plans for the State.

\*\*The Acala cotton was developed by the Bureau of Plant Industry from seed imported from Acala, Chiapas, Mexico, in 1906, and was introduced into Texas for planting in 1911.

improvement lines. All of the farmers who planted the seed are more than pleased with it and say that they intend to plant their whole crop with it next year. Already I have been asked by farmers who did not get any of the seed this year where they can get some for next year. This cotton yielded as well as and better than other varieties in the county and brought an average of 2 cents per pound more than other varieties. - J. B. Daniels, County Agent, Batesville, Independence County.

Oklahoma

Tillman County cotton producers had every known variety of short staple cotton mixed in every proportion. The result was a low market. This office set about to get one community to standardize one variety of adapted cotton to the extent that a better market would be had, believing that other communities seeing the financial gain would readily take up the proposition. In April a notice was sent out to the farmers advising them of the plan and calling a meeting to be held in the district court room. Mr. Watson, breeder of Watson's Improved Acala cotton, and F. F. Ferguson, of the Nunn seed farm, addressed 200 farmers on this occasion. Mr. Watson made a proposition to the farmers to put out 3,000 bushels of seed from his farm near Waxahachie, Tex. Two things stood in his way: his inability to properly finance the deal, and the fact that the pink boll worm was reported in that county. After a conference with Bruce Albright and Jack Smith, manager and field man, respectively, of the Martindale seed farm at Lockhart, Tex., these farmers agreed to a proposition I thought reasonable. I called in the heads of the four banks of Frederick and the directors of the chamber of commerce, who also thought the proposition looked good, and they agreed to give it any backing the county agent's office thought just and necessary.

The Martindale seed farm had secured direct from A. D. Mebane 3,600 bushels of seed. This seed was from cotton rogued in the field and had been culled and sterilized. The farm offered to put out the seed to any man recommended by the banks, taking the farmer's note for it on the basis of \$2.25 per bushel, the farmer to pay for the seed when he sold his cotton. The Martindale seed farm, the name of which had been changed to the Frederick seed farm, was to take all seed that was produced from seed bought from them at their establishment in Frederick, paying the farmer a premium of \$5 per ton. They figured this \$5 per ton premium would make the farmer's seed about the same as free to him. The farmer signed a contract to grow on his place no cotton but the improved Mebane cotton. This was done to do away with the danger of getting the cotton mixed. The farmer also agreed to deliver all the seed he produced to the Frederick seed farm, which agreed to rogue desirable fields, cull the seed, and put it out to Tillman County farmers under contract for another year. This will give Tillman County the best of seed each year.

All cotton is to be ginned at one gin, where no other cotton will be ginned. The firm will be responsible for the gin for all ginnings. The ginning will be done to best protect the staple. One hundred and two farmers planted 5,600 acres under contract. During planting time bad storms destroyed some of the seed, leaving about 5,000 acres which produced 1,500 bales of cotton. The market was so much improved that much cotton that formerly went to a neighboring town came to Frederick. G. W. Norwood, merchant and buyer of Davidson, told me

that they had lost many of their cotton customers because of this fact. The farmers and business men are all well pleased with the results obtained. The other towns in the county are looking for such a proposition. The Frederick seed farm had all of its seed sold before the picking season was over. Another carload of this seed was sold in the county. The farmers' gin at Tipton put in a stand to gin nothing but the longer of a short staple cotton. - S. D. Johnson, County Agent, Frederick, Tillman County.

South Carolina

In Kershaw County, community improvement work with long staple cotton was begun in Boykin community this spring. Ten men who are planting long staple cotton purchased good seed from which to grow planting seed for the 1923 crop. Deltatype Webber was adopted as the variety to grow and breed. In Marlboro County, seed improvement work with Cleveland cotton was started in two communities, and plant-to-row breeding plots were conducted on the farms of J. R. Townsend and Paul Rogers. Seed from the best rows was saved for increase plots and selections made for breeding plots next year. Three farmers on adjoining farms are planting the same variety. In Sumter County, the Mayville community started seed improvement work this spring. The breeding plot was on the farm of R. J. Mays, who plants 2,000 acres of cotton. J. F. Bland plants 1,500 acres of Cleveland cotton, and S. M. Rhodes plants 100 acres. These men were induced to get 50 bushels of pedigreed seed this spring, from which they have approximately 1,250 bushels of seed to plant in 1923. The remainder of each farm will be planted in Cleveland seed of very high quality. Several farmers in this community who insisted on planting King this year will plant Cleveland next year. - E. E. Hall, Extension Plant Breeder, Clemson Agricultural College, Clemson College.

Considerable time has been devoted to cotton this year. I think that cotton will always be our chief money crop, so I am anxious to follow up this work as closely as possible. When I first began work in the county several years ago, I was at the time testing out a number of varieties of cotton for our State experiment station. Among these varieties was Cleveland Big Boll, which made the highest yield per acre of any. The following spring I bought enough seed to plant 8 acres of this variety and make 10 bales. After saving my own seed I sold at the market price or exchanged, bushel for bushel, all the seed that I had left. From that time on I have worked on this variety for short staple, until now it is about the only short staple variety in the county. Since the boll weevil has made its appearance we occasionally find a farmer who wants to plant some of the early maturing varieties, but our experiment stations and plant breeders say that the Cleveland is the best variety even for the weevil. If I can see a man before he orders any of the so-called early-maturing varieties, such as the Early King or Improved Simpkins, I can usually convince him that he had better stick to the Cleveland Big Boll.

This year with the help of our extension plant breeder, E. E. Hall, we have selected one community in the county where we are doing special work on the Cleveland variety. First, we got every man in the community to agree to plant nothing but this one variety; and with the exception of one man who slipped in

a few acres of long staple without telling us, this plan was carried out. Next we visited every man in the community and got him to agree to buy a few pedigreed seed for planting a seed patch for our 1923 planting seed. We then got samples and prices from the different breeders of this variety of seed; and at a meeting of the farmers of the community, we let the men select the breeder from whom they wanted to buy. With the exception of one man, every one in the community bought a few seed. We made an order for 53 bushels and sent it in. This fall we went through these seed patches and made stalk selections in order to get seed for our next year's seed patches. - S. W. Epps, County Agent, Latta, Dillon County.

Texas

Most of the cotton in Collingsworth County was of a poor grade and staple in 1921. In January of this year I secured through the banks of Wellington two carloads of pure Acala cottonseed for the farmers, at cost. From my experience with Acala cotton in Wheeler County I was sure that it was one of the best varieties I could get for this part of the State. The buyers have not hesitated to pay a fair premium for all Acala; the ginners are pleased; the farmers are pleased; and I feel safe in saying that 50 per cent of the cotton acreage of this county will be planted to Acala cotton in 1923. - A. L. Nowlin, County Agent, Wellington, Collingsworth County.

An effort was made this spring to plant only one variety of cotton in each community in the county and to make a test of the staple varieties. The communities voted on Mebane as the most popular variety; but at the time of ordering the seed A. D. Mebane had sold out, and the farmers were persuaded to select Bennett\* (Lone Star). L. H. Grobe, cashier of the Farmers' and Merchants' Bank, Yoakum, cooperated in ordering a car of second-year Bennett seed from the Taft ranch. This seed was distributed among 140 farmers on a cost basis. In a letter recently received from Mr. Grobe he said in part, "We believe that this has been the best move our bank has ever made in spite of the two extremes through which our cotton crop has passed. The Bennett cotton has certainly made a name in the Yoakum territory, and the farmers have sold all their seed for planting purposes at \$60 to \$75 a ton." In a recent letter, W. E. Stapp, cotton buyer, said in part, "In answer to your inquiry as to how the carload of Bennett seed planted in the Yoakum territory had affected the value of cotton being marketed in Yoakum, I will say that it has added \$2.50 to \$3 a bale to the average receipts and is worth 30 points more than Shiner cotton."

In Cuero, Mr. Jaeggli cooperated in ordering a car of second-year Bennett seed from Bishop, Tex. This seed was not so good as the Taft seed, but all farmers are well pleased with the yield and have been getting 30 points premium. Mr. Tarkington, cotton merchant in Cuero, said in a recent letter, "I have examined several samples of Bennett cotton and find it to be of a much better character than the average cotton from here. I shall assist you in any way next year in increasing the acreage in Bennett cotton." Three hundred acres of pedigreed

\*The cotton grown considerably in Texas under the names "Bennett" and "Bennett's New" cotton appears identical both in character and percentage of lint, and in general appearance in the field and response to cultural methods, with the Lone Star variety which was developed and first planted in Texas in 1908 by the Bureau of Plant Industry. R. L. Bennett stated in 1922 in the United States Circuit Court of Appeals that the cottonseed sold by him under the designation of "Bennett" was seed of the Lone Star variety.

Bennett seed were planted at Westhoff. As a result of the record made by this test, 75 per cent of the Westhoff acreage will be planted in pure-type Bennett seed. In association with A. K. Short, extension agronomist, field meetings on seed selection were held in four communities. Mr. Short gave those present some information which they think will enable them to make intelligent field selections in the future. He made an able talk on cotton standardization and community organization that was well received at all meetings. As a result of the work during the year 1922 for better cotton planting seed and standardization of one variety, a county-wide interest has been created in better planting seed and care of the cotton crop. - O. M. Lander, County Agent, Cuero, De Witt County.

As was discussed in the annual report for 1921, the farm bureau took upon itself the work of standardization of one variety of cotton. All investigations pointed to the fact that this variety should be Acala. Eight hundred bushels were planted in 1921; and at the end of the season when the net acre return was carefully compared with other varieties, Acala seemed to have produced about \$20 per acre more than other varieties. It was easily sold by all buyers who advocated its increased planting. Over 400 bushels of seed bought by the farm bureau in 1921 were held over until the planting season of 1922. Talks, giving the results obtained with the Acala in comparison with other varieties, were given at various farm bureau local meetings. As a result, all of the seed held over was disposed of, and all farmers who grew Acala and saved the pure seed were able to dispose of their seed for planting. Besides this, four car-loads of Acala were shipped in and distributed, resulting in approximately 80 per cent of the cotton acreage being planted to the one variety. A statement of the fact that we had practically the entire valley planted to one variety was sent to all buyers, with the result that practically all of the leading firms buying cotton in the State of Texas and one or two in Louisiana sent their representatives here this year.

The price has been exceptionally good, the growers having averaged from 23 1/2 to 28 1/2 cents per pound. The only feature in this year's cotton selling which has not worked to the advantage of the one variety to the exclusion of all others, has been the fact that the buyers in their anxiety to buy all cotton possible, have given more for shorter types than the market would stand, in order to get the Acala. Buyers have generally said that they realized they were giving more for the other varieties than the market would stand, but that this was necessary owing to the keenness of competition. They have not hesitated, however, to tell all of the growers that it was to their advantage to plant Acala; and I believe that I am safe in estimating that at least 95 per cent of the coming year's acreage will be in Acala. T. D. Porcher, president of the El Paso County Farm Bureau, in his annual report estimated this work to have been worth approximately \$80,000 to the farmers of that county. - H. C. Stewart, County Agent, El Paso County.

As a first step toward the standardization of our cotton to one variety, a committee of farmers was called to the county agent's office early in January of this year to consider the matter. After considerable discussion, they decided to invite representatives of the leading cotton breeders of Texas to appear before a mass meeting of our farmers two weeks later, for the purpose of discussing

the merits of their respective varieties. It was agreed that after each breeder had discussed the variety and type of his cotton, the meeting should elect some particular one for the community to use, thus standardizing the variety. On the day set for the meeting there were 6 cotton breeders present before an audience of about 125 farmers. After each had had an opportunity to point out the merits of his cotton, the salesmen were asked to retire, and a ballot was taken to determine which variety should be used. By an overwhelming majority the farmers chose the Lone Star variety and decided to purchase the seed from the originator, D. A. Saunders of Greenville, Tex. A carload of Lone Star seed was ordered and distributed to the farmers of Erath County.

Results from the planting of these seeds were very satisfactory from the standpoint of production per acre and length, and quality of staple. The seed was distributed over such a large area, however, that the variety was not standardized in any particular community. Every effort was made to produce as nearly as possible pure seed from the planting. The cotton fields were rogued and the off-types pulled out. The farmers growing this cotton also elected a certain gin to handle it on certain days, which greatly facilitated keeping the seed pure. It is hoped that this small beginning in the direction of standardizing one variety of cotton for this section of Texas will develop fully. Through the efforts of this office our farmers have come to appreciate the value of a uniform grade and staple of cotton on the open market. This movement is just beginning. Many growers realized from \$5 to \$10 per bale more than they would have realized with a small quantity of good cotton. The idea of having a single variety of good cotton in large quantities of uniform grade and staple is now firmly impressed on the minds of these growers. - J. W. Luker, County Agent, Stephensville, Erath County.

It was my aim at the beginning of the year to persuade the farmers of at least three communities to plant the same variety of cotton. I talked the matter over with a number of farmers in the communities where I was going to attempt to put this project over and got them to talk with their neighbors relative to the matter. In the summer I had two field meetings in two of these communities and had A. K. Short, extension agronomist of the Agricultural and Mechanical College, visit me on this occasion and talk to the farmers about the importance of field seed selection and standardization of farm crops. The result was that these farmers decided to call a meeting of the farmers of the two communities to see if some sort of an agreement could be reached for all to plant the same variety of cottonseed. After a meeting or two, enough farmers to justify the ordering of two carloads of pure seed signed the agreement. A committee of three farmers was sent to investigate the seed prices at Lockhart and at San Marcos, with the result that the committee decided to buy their seed from the A. D. Mebane Seed Co. at Lockhart. The seed was contracted for at a much reduced price by buying by the carload. The farmers of the two communities saved about \$1,250 on the two carloads of seed. I have succeeded in getting only two communities to plant the same variety of cottonseed, yet I consider this one of the best pieces of work that I have accomplished since I have been in the county. - G. M. Jones, County Agent, Karnes City, Karnes County.

Cotton is the great money crop of this county. Quite a number of varieties have been planted, and this makes it difficult to keep the varieties pure. As a result the varieties soon "run out"; and high-priced seed is bought, adding to the cost of production and discouraging many from buying improved seed. After consulting a number of farmers in an isolated community at Nolan, I decided to make an effort to induce the planting of one improved variety. As a result of this effort about 500 acres were planted to one variety of improved seed. The rainfall was very heavy; with the result that some secured poor stands, while others failed to secure a stand. The cotton from this variety was studied in its development and adaptability to this soil and climate. The cotton was of the improved Mebane variety and behaved splendidly during the long hot summer. A previously appointed committee waited upon the ginners, and a day was set for ginning the cotton. After the gin was carefully cleaned, about 100 bales were ginned and the seed saved for planting. Neighboring farmers readily bought the seed at \$1 per bushel for next year's planting. At Hylton a gin day was set, and 25 bales of this cotton were ginned. The seed was sold at the same price for planting. The market price on cotton-seed at that time was less than 50 cents per bushel. A profit of about \$2,100 was made by these farmers on seed. Another profit was made in yield and staple, that will amount to approximately \$10 per bale. - W. C. Calvert, County Agent, Sweetwater, Nolan County.

In conjunction with A. K. Short, extension agronomist, eight communities, represented by their local leaders, held a meeting in the county agent's office at Georgetown on April 20. Definite outlines were adopted for the standardization of cotton in each community by the method that Mr. Short had previously worked out in South Texas; and outlines were adopted for field tours, selection and rogueing. Data were to be made on the behavior of the different varieties and the final count of the dollars per acre. Each community was to adopt the variety that would be most profitable per acre, and at least 15 men in each community were to grow one or more varieties. The field tours were very successful in practically every detail, with sometimes over 50 farmers present. Two of the communities have crystallized almost solidly on one variety; at least two and probably three others will have done so by December 15. This is one of our outstanding accomplishments in the county this year, due to the fact that the work was carefully planned and carried through. - G. L. Crawford, County Agent, Georgetown, Williamson County.

